"This is Your Santa Clara Valley Water Conservation District"

By

Santa Clara Valley Water Conservation District

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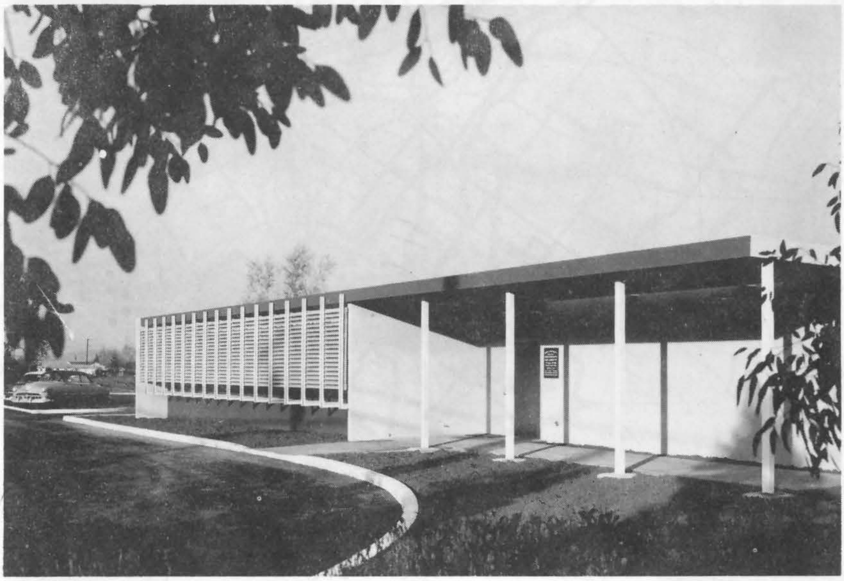

YOUR NEW HEADQUARTERS BUILDING
15420 Almaden Road in San Jose

SANTA CLARA VALLEY WATER CONSERVATION DISTRICT
15420 Almaden Road
San Jose, California

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A REPORT ON THE PROGRESS IN WATER CONSERVATION FOR THE PEOPLE OF SANTA CLARA VALLEY

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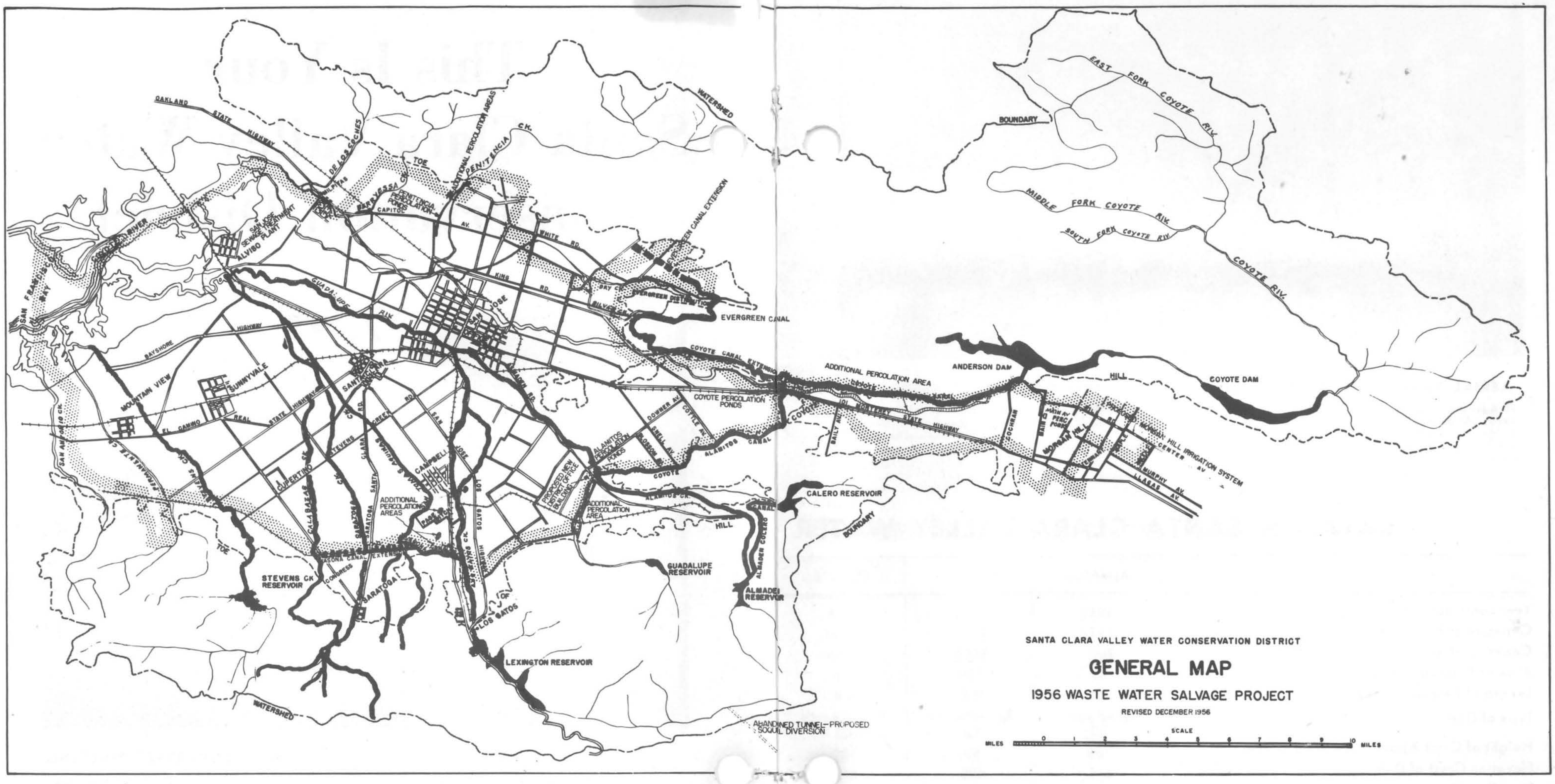


SANTA CLARA VALLEY WATER CONSERVATION DISTRICT

GENERAL MAP

1956 WASTE WATER SALVAGE PROJECT

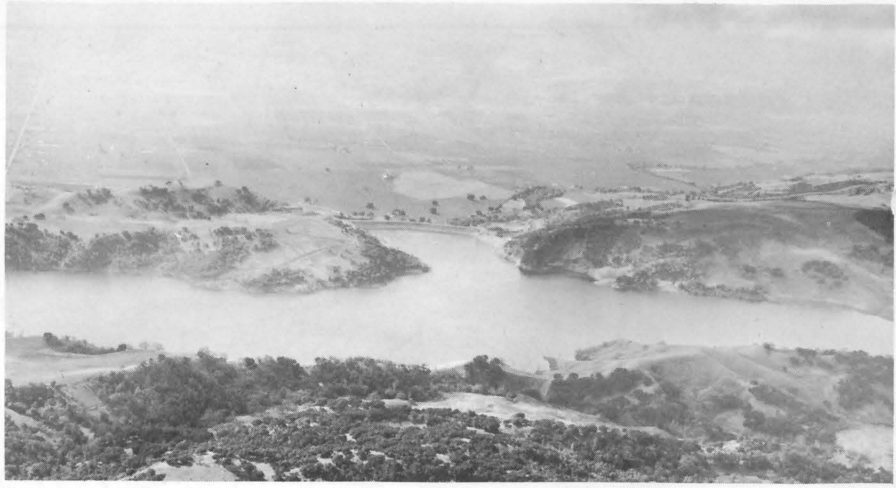
REVISED DECEMBER 1956

THIS IS YOUR SANTA CLARA VALLEY WATER CONSERVATION DISTRICT

The District as originally established extended on the north to Adobe or San Antonio Creek north of Mountain View, on the east and west to the foothills, and on the south to Coyote. It was organized on November 12, 1929. In 1953 some 4,000 acres of land in the eastern foothills known as the Evergreen Area were included, and in 1954 the Central Santa Clara Valley Water Conservation District, extending from Coyote to the South limits of Morgan Hill, comprising about 14,000 acres, was formally annexed to the Santa Clara Valley Water Conservation District.

In 1934 a bond issue totaling $2,000,000 was passed to build the first six dams of the District — Coyote, Calero, Almaden, Guadalupe, Vasona and Stevens Creek — as well as the Vasona Canal and the first section of the Coyote Canal. To complete these projects, a supplemental bond isue of $400,000 was voted in 1936. A Public Works Administration contribution of approximately $672,000 was obtained. Factual data on the storage capacity and construction details of each of these dams is outlined on the next page.

The boundaries of the District as originally formed followed the boundaries of the underground water basin, the lands over which would benefit from the works of the District. Whenever it could be shown that areas outside this basin could be benefited, they have been included within the District upon payment of their pro-rata share of the capital investment of the District's works. Any other areas that can benefit from the works of the District will be included on the same basis.



AERIAL VIEW OF LEROY ANDERSON DAM AND ONE-QUARTER OF RESERVOIR

This is the largest reservoir in the District. It has a capacity of 75,000 acre-feet. Constructed in 1950, Leroy Anderson Dam was financed by a $3,000,000 bond issue. It is located on the Coyote River, below the confluence of the Las Animas and Coyote Creeks and their several tributaries. The dam created a man-made lake some 7½ miles in length. It was filled the first year and had carried over water for seven seasons.

AERIAL VIEW OF LEXINGTON DAM AND RESERVOIR

This is the second largest of the District's eight reservoirs. It has a capacity of 25,100 acre-feet. During the wet winter of 1955-56 when the December floods struck Santa Clara Valley, Lexington Dam and Reservoir filled to capacity in the storm and has been credited with preventing the wiping out of Los Gatos and a large portion of San Jose during the flood. Constructed in 1952 after a 4-year delay for rerouting the Los Gatos-Santa Cruz Highway. The project was started in 1947 with passage of a bond isue of $2,500,000. The intervening 4-year delay made necessary a supplementary bond issue of $850,000 due to inflationary costs.

DATA ON SANTA CLARA VALLEY WATER CONSERVATION DISTRICT RESERVOIRS

	ALMADEN	CALERO	COYOTE	GUADALUPE	STEVENS CREEK	VASONA	LEROY ANDERSON	LEXINGTON	SUMMARY TOTALS
Year constructed	1935	1935	1936	1935	1935	1935	1950	1952	
Capacity of Reservoir — acre-feet	1972	9213	24,560	3460	3955	750	75,000	25,100	144,010
Capacity of Spillway — cu. ft. per sec.	7000	5000	33,000	6000	10,000	12,600	24,000	20,000	
Area of Reservoir (max.) — acres	62	329	688	75	95	79	1600	450	
Length of Reservoir (max.) — miles	1.1	2.2	4.8	1.1	1.1	0.8	7.8	2.5	
Type of Dam	Rolled earth fill	Rolled earth fill	Rolled earth & rock fill	Rolled earth fill	Rolled earth fill	Rolled earth fill	Rolled earth & rock fill	Rolled earth fill	
Height of Crest Above Streambed — feet	105	90	120	129	120	30	240	195	
Elevation Crest of Dam	615	490	80	27	545	305	640	665	
Dam Crest Length — feet	460	840	990	650	1000	1000	1385	830	
Dam Crest Width — feet	20	20	100-160	20	20	20	40	40	
Dam Base Width — feet	545	495	945	650	620	153	1100	1370	
Cubic Yards of Fill	250,000	550,000	1,060,000	520,000	530,000	70,000	3,320,000	2,124,000	8,424,000
Diameter of Outlet Pipe — inches	36	36	50	36	50	42	49	50	
Length of Outlet Pipe — feet	690	450	900	690	680	20	1160	1410	
Cubic Yards of Concrete	3000	4000	3000	4000	5000	2000	5214	5450	31,664
Tons of Steel	130	170	120	130	200	150	264	182	1346
Spillway Weir Length — feet	123	81¾	110	80	127	220½	191	150	
Type of Spillway	Side channel	Chute	Chute	Side channel	Side channel	Conc. buttress & radial gate	Chute	Chute	
Freeboard — feet	8	6.5	25	10	8	5	15	15	
Resident Engineer	J. W. Smith	R. P. Bryant	G. W. Hunt	T. D. Sawyer	F. W. Moore	J. W. Smith	J. R. Roll	J. R. Roll	
Contractor	F. O. Bohnett & D. McDonald	F. O. Bohnett & D. McDonald	Macco Construction Co.	A. Teichert & Son, Inc.	F. O. Bohnett & D. McDonald	Carl N. Swenson Co.	Guy F. Atkinson Co.	Guy F. Atkinson Co.	

THIS IS YOUR BOARD OF DIRECTORS OF THE SANTA CLARA VALLEY WATER CONSERVATION DISTRICT

The District is governed by a Board of seven Directors, elected biennially for 4-year terms from their respective divisions. The present Board of Directors consists of the following: Division I — Hermann Gerdts, Division II — J. J. Mariani, Division III — Vernon Holthouse, Division IV — Frank A. Wilcox, Division V — S. W. Pfeifle, Division VI — E. A. Mirassou, and Division VII — Frank J. Polak. Pictured left to right are Directors: Wilcox, Mariani, Mirassou, Holthouse, Gerdts, Pfeifle and Polak; Engineer-Manager J. Robert Roll, Attorney Albert Henley (Jones, Griswold & Henley, legal counselors for the District), Robert E. Podesta, Director of Public Education; and Mrs. Thelma Wright, secretary-treasurer for the District.

The Policy of the Board of Directors of the District

It is the policy of the Board of Directors to operate all of the District's facilities to capture that 62% of the Valley's precious rainfall which would otherwise waste into the Bay and to put this water into the underground gravels, thus raising the general water level. The District is encouraging employing surface water sources for pumping to relieve the consumption of water from the underground reservoir. In areas experiencing limited percolation benefits in the District, the policy has been adopted of serving that area with water from District trunk lines if property owners in the area are willing to finance pump installation and pumping costs, together with cost of lateral lines running from the District's trunk line. A special assessment district has been formed in the Evergreen area to take advantage of this opportunity. Similar districts are being considered in other parts of the Santa Clara Valley Water Conservation District.

Local Representation Is Given to District Taxpayers

By dividing the District into seven parts and assigning responsibility for representation of that area to one Director, the taxpayer is given the opportunity for close contact with his representative who specializes in water conservation activity.

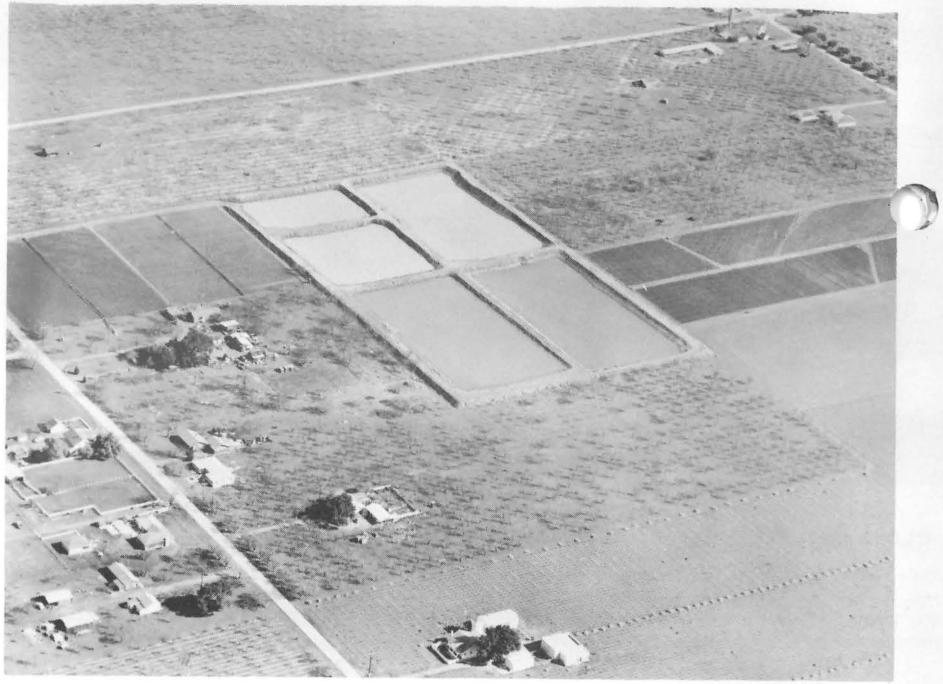
Water supply and conservation of water has grown to be a complex problem with the industrial and residential growth of Santa Clara Valley. The localized and specialized representation in this complex field has been acclaimed as one of the advantages afforded to the taxpayers by the Santa Clara Valley Water Conservation District.

Tax Policy of the District

Taxes are assessed on land only (not on improvements) to insure proper sharing of the tax burden by those consuming the water. The Board of Directors has unanimously adopted the policy that the dams, the auxiliary canals and the percolation beds have been the product of the taxes of the entire District; that the water saved by them should be transported and percolated equitably so that the benefits will be obtained by each and every part of the District; that the waters stored are flood waters which would otherwise be wasted into the sea, and having been saved by the efforts of the entire District, the benefits should be distributed according to the needs of the entire District.

Santa Clara Valley has been blessed by a natural water distribution system in the underground aquifiers (or sand and gravel stratas) lying below us. This system has the important qualities of being free from contamination, evaporation and other losses. It provides a natural purification system and reaches all portions of Santa Clara Valley.

In addition to transporting water from the large reservoirs on the east side of the Valley to the water-deficient areas on the west, the District's surface distribution system has been so designed to make it possible to transport imported water throughout the Valley.



THIS IS THE MAIN AVE. PERCOLATION PONDS IN MORGAN HILL

Located near Anderson Dam, the percolation ponds cover 10 acres. This installation was acquired from the Central Santa Clara Valley Water Conservation District in 1955. Steps are underway to study the feasibility of employing inverted wells to assist in percolating water in this area. The use of a surface irrigation system to solve Morgan Hill's limited percolation benefits is also under consideration. This system would be similar to that financed by the property owners of the Evergreen area.

Need for Additional Percolation Areas

There has been a demonstrated need for large expansion of the percolating facilities of the Santa Clara Valley Water Conservation District. In the wet season of 1955-56, with all reservoirs filled (except Leroy Anderson, 75,000 acre feet), it was not possible to percolate the water that was stored. When the following winter's run-off started, there were still about 50,000 acre feet of water left in surface storage.

To efficiently and completely utilize the water we can now store and in order to be able to percolate any new water that may become available through local development or importation, a $1,500,000 bond appropriation was approved by the voters in 1957 to increase the percolation facilities of the District immediately. These facilities are now being expanded.

THIS IS A PORTION OF THE PENITENCIA PERCOLATION PONDS

The Penitencia Percolation Ponds are constructed along an abandoned railroad right-of-way, paralleling Penitencia Creek at the easterly edge of the Valley between Noble and Capitol Avenues. They consist of a line of ponds 8,000 feet long, having an area of 11 acres. Since its purchase in 1936, the first year of operation, the water percolated in these ponds has varied from 0 in 1940 to 2,400 acre-feet in 1938. They have consistently shown a percolation capacity of about 15 cubic feet per second, or 7.3 acre-feet per acre per day.

Other Percolation Facilities of the District

Coyote percolation Pond is in the stream bed of the Coyote River at Metcalf Road. The pond is formed by an 8′ high removable flashboard dam, with reinforced concrete floor and abutments. The area of the pond is 32 acres. It percolates natural flow at medium river stages and also storage flow from Anderson Dam when the natural flow is low or has ceased. This was constructed in 1932.

Alamitos Percolation Pond is located at the junction of the Almaden and Guadalupe Creeks. The area devoted to percolation consists of 30 acres east of the Almaden Road and 20 acres west of the Almaden Road. Waters percolated in this area are increased by water from the Anderson and Coyote Reservoirs transported by the Coyote-Alamitos Canal. This percolation area was purchased in 1931.

Upper Page Ditch and Percolation Ponds located near the Los Gatos Creek in the vicinity of Par Avenue, consists of 6 acres of percolation area. It was purchased in 1930.

THIS IS A PORTION OF THE ALMADEN-CALERO CANAL

The Almaden-Calero Canal is approximately 4½ miles long. It was constructed in 1935 to carry 100 cu. ft./sec. of the Los Alamitos Creek waters from Almaden Reservoir (capacity 2,000 acre-feet) to the Calero Reservoir (capacity 9,200 acre-feet). An improvement program is in progress on this canal to double the capacity. This will make it possible to salvage a greater portion of the waters of Los Alamitos Creek than is now possible. Almaden Reservoir, because of its limited storage, fills rapidly and wastes water over the spillway, even with the Almaden-Calero Canal operating at its former full capacity. To date, approximately 16,000 feet of this canal has been concrete lined.

Other Canals of the Water District

COYOTE - ALAMITOS CANAL — Carries water from the Coyote system to the west side of the Valley. Constructed in 1953, it is approximately 9 miles in length. Designed to carry 50 cubic feet per second as an unlined canal, its capacity will be increased to about 75 cubic feet/second by concrete lining. Receives water from the Coyote Canal Extension at Metcalf Road and carries it to the Alamitos Percolation Ponds near Almaden Road. To date, 9,640 feet of the canal portion of the system has been concrete lined.

COYOTE CANAL — Constructed in 1936, with a capacity of 100 cu. ft./sec. as an unlined canal, its capacity will be increased to 125 cu. ft./sec. by enlarging the cross-section of the canal. This serves as feeder canal for the Coyote-Alamitos Canal, the Coyote Canal Extension and thence to the Evergreen Canal. At times, it supplies water to the Coyote Percolation Ponds and the Coyote Creek North of the ponds for percolation.

EVERGREEN CANAL — Constructed in 1954 with a maximum capacity of 10 cu. ft./sec. as an unlined canal to serve landowners of the Evergreen area embracing approximately 4,000 acres. Approximately 6 miles long. Property owners levied a special assessment upon themselves to bring water from the Coyote, elevating it 200 feet to a canal for release into Silver Creek, Dry Creek and Yerba Buena Creek. Concrete lining of this canal will increase capacity to 18 cu. ft./sec. To date, 23,050 feet of the canal has been concrete lined.

COYOTE CANAL EXTENSION — That portion situated south of Metcalf Road was constructed with a capacity of 40 cu. ft./sec. Enlarging the cross-section of the canal and then concrete lining it will increase capacity to 120 cu. ft./sec. That portion situated north of Metcalf Road has a capacity of 10 cu. ft./sec. and will be doubled with concrete lining to 20 cu. ft./sec. It is approximately 8½ miles long. Constructed between 1942 and 1954. To date, 12,300 feet have been concrete lined.

Most of the streams in Santa Clara Valley are used by the Water Conservation District for both transportation of water and percolation of water. The District maintains more than 50 water stage recording stations, similar to that pictured above, to record stream flow to determine the amount of percolation into the underground gravel. The District makes use of the natural stream channels, as well as its canals and pipe lines, to transport water to all parts of Santa Clara Valley.

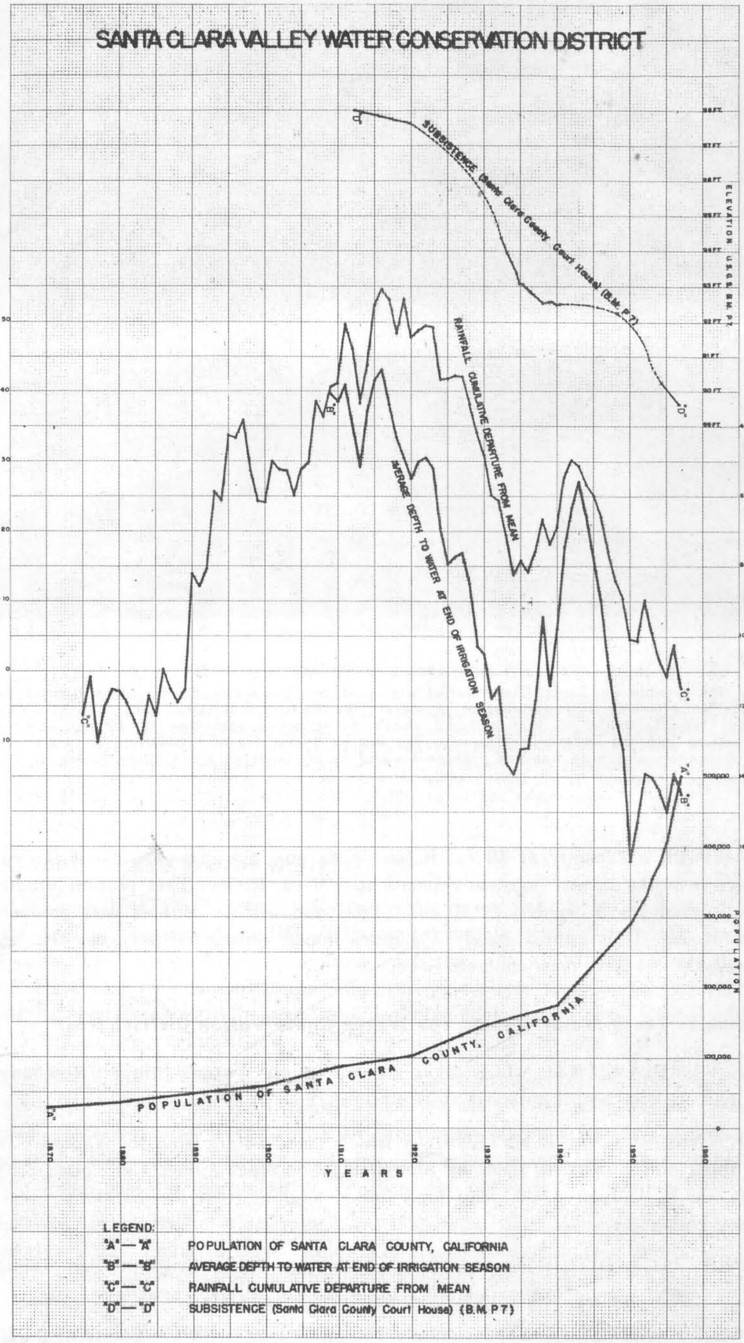
In Addition to These Major Canals, the Water Conservation District Has:

THE VASONA CANAL which takes water from the Vasona Storage Reservoir to San Tomas Creek (a distance of approximately 3 miles, 75 cu. ft./sec.).

THE VASONA CANAL EXTENSION which takes waters from the Vasona Canal near Pollard Road and transports them by pipe line to Saratoga Creek (30″ pipe, 8,200′ long, 15 cu. ft./sec.). And an 8,000′ long pipe line extending from the Saratoga Creek to the Calabazas Creek.

UPPER PAGE DITCH carries waters of the Los Gatos Creek to San Tomas Creek below the Vasona Canal (approximately 2 miles, 25 cu. ft./sec. capacity).

LOWER PAGE DITCH, approximately 1½ miles long, with a capacity of 8 cu. ft./sec. Carries water from Camden Avenue to Hamilton Avenue, mostly by pipe line, for use at present in orchard irrigation. Future use to supply inverted wells.



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